Amendments to the Claims:

1. (Cancelled)

41. (New) An enhanced VSB transmitter for transmitting main data and supplemental data comprising:

a VSB pre-processor for processing the supplemental data for first forward error correction (FEC) and expanding the first FEC processed data by inserting a plurality of null bits into the first FEC processed data;

a first multiplexer for multiplexing the main data and the expanded supplemental data;

a VSB main processor for processing the multiplexed data for second forward error correction (FEC); and

a data format converter for formatting the second FEC processed data for transmission and transmitting the formatted data to one or more VSB receivers.

42. (New) The enhanced VSB transmitter of claim 41, wherein the VSB pre-processor comprises:

a first forward error correction (FEC) coder for coding the supplemental data; and

a null data inserter for inserting the plurality of null bits into the first FEC coded supplemental data.

43. (New) The enhanced VSB transmitter of claim 42, wherein the first FEC coder is a Reed-Solomon coder.

44. (New) The enhanced VSB transmitter of claim 43, wherein the supplemental data comprises X bytes and the Reed-Solomon coder provides Y parity bytes, wherein a total of X and Y bytes is 184 bytes.

45. (New) The enhanced VSB transmitter of claim 41, wherein the plurality of null bits are arranged at alternating positions within each supplemental data.

46. (New) The enhanced VSB transmitter of claim 41, wherein the plurality of null bits are "0".

47. (New) The enhanced VSB transmitter of claim 41, wherein the VSB pre-processor comprises:

a first forward error correction (FEC) coder for coding the supplemental data;

an interleaver for interleaving the first FEC coded supplemental data; and

a null data inserter for inserting the plurality of null bits into the interleaved supplemental data.

48. (New) The enhanced VSB transmitter of claim 47, further comprising a header inserter for inserting a header into the supplemental data having the plurality of null bits.

49. (New) The enhanced VSB transmitter of claim 48, wherein the header inserter adds three bytes of header information to the supplemental data having the plurality of null bits, wherein the header information contains program identification.

50. (New) The enhanced VSB transmitter of claim 47, wherein the null data inserter inserts the plurality of null bits into each supplemental data in a predetermined order.

51. (New) The enhanced VSB transmitter of claim 41, wherein the first multiplexer multiplexes the main data and the expanded supplemental data according to a predetermined multiplexing information.

52. (New) The enhanced VSB transmitter of claim 51, wherein the predetermined multiplexing information is inserted in a reserved area of a field synchronizing signal or a data segment of the supplemental data.

53. (New) The enhanced VSB transmitter of claim 51, wherein the predetermined multiplexing information comprises at least one of a multiplexing ratio and unit.

54. (New) The enhanced VSB transmitter of claim 53, wherein the multiplexing unit and the multiplexing ratio are predetermined based on amounts of the main data and the expanded supplemental data.

55. (New) The enhanced VSB transmitter of claim 53, wherein the multiplexing ratio of the expanded supplemental data to the main data in the first multiplexer is one to one.

56. (New) The enhanced VSB transmitter of claim 53, wherein the multiplexing ratio of the expanded supplemental data and the main data in the first multiplexer is one to three.

57. (New) The enhanced VSB transmitter of claim 41, wherein the first multiplexer is responsive to a field synchronizing signal used for synchronizing a data frame of the data format converter.

58. (New) The enhanced VSB transmitter of claim 41, wherein one field of the multiplexed data has 312 data segments and one field synchronizing segment.

59. (New) The enhanced VSB transmitter of claim 41, wherein the main data is MPEG data.

60. (New) The enhanced VSB transmitter of claim 41, wherein the VSB main processor comprises:

a data randomizer for randomizing the multiplexed data;

a Reed-Solomon coder for coding the randomized data;

a data interleaver for interleaving the Reed-Solomon coded data; and

a Trellis coder for converting the interleaved data into symbols.

61. (New) The enhanced VSB transmitter of claim 41, wherein the data format converter comprises:

a second multiplexer for multiplexing the converted symbols with a field synchronizing signal and segment synchronizing signals;

a pilot inserter for inserting pilot signals into the multiplexed symbol data;

a modulator for modulating the symbol data having the pilot signals into a signal of an intermediate frequency band; and

a RF (Radio Frequency) converter for converting the modulated signal into a RF band signal for transmission.

62. (New) A method of transmitting main data and supplemental data, the method comprising:

pre-processing the supplemental data for first forward error correction (FEC);

expanding the first FEC processed data by inserting null data into the first FEC processed data;

multiplexing the main data and the expanded supplemental data;

processing the multiplexed data for second forward error correction (FEC);

formatting the second FEC processed data for transmission; and

transmitting the formatted data to one or more VSB receivers.

63. (New) The method of claim 62, wherein pre-processing the supplemental data for first forward error correction (FEC) comprises:

subjecting the supplemental data to a Reed-Solomon coding by adding Reed-Solomon parity data to the Reed-Solomon coded supplemental data; and

interleaving the coded supplemental data.

64. (New) The method of claim 63, wherein an amount of the added Reed-Solomon parity data varies with an amount of the supplemental data.

65. (New) The method of claim 62, wherein the null data is arranged at alternating positions within the first FEC processed data.

66. (New) The method of claim 62, wherein further comprising adding headers to the expanded supplemental data.

67. (New) The method of claim 66, wherein each header comprises an identification code identifying the expanded supplemental data.

68. (New) The method of claim 62, wherein processing the multiplexed data for second forward error correction (FEC) comprises:

randomizing the multiplexed data;

performing Reed-Solomon coding to the randomized data;

interleaving the Reed-Solomon coded data; and

converting the interleaved data into symbols.

69. (New) A VSB data format comprising:

a plurality of main data segments, each first data segment comprising N data bytes; and

a plurality of expanded supplemental data segments, each second data segment comprising M expanded supplemental data bytes, wherein a plurality of null bits are inserted at predetermined positions within the expanded supplemental data segments.

70. (New) The VSB data format of claim 69, wherein each main data segment is an MEPG data segment.

71. (New) The VSB data format of claim 69, wherein the predetermined positions are alternating positions within each expanded supplemental data segment.

72. (New) The VSB data format of claim 69, wherein each expanded supplemental data segment has 184 bytes comprising a total of 92 bytes of original supplemental data and a total of 92 bytes of null data.

73. (New) The VSB data format of claim 69, wherein each expanded supplemental data segment further includes Reed-Solomon parity bytes.

74. (New) The VSB data format of claim 69, wherein a MPEG header is added to each main data segment and each expanded supplemental data segment.

75. (New) The VSB data format of claim 74, wherein the MEPG header comprises 3 bytes.

76. (New) The VSB data format of claim 69, wherein each expanded supplemental data segment has a total of 187 bytes comprising a total of 3 bytes of an MEPG header, a total of 92 bytes of original supplemental data, and a total of 92 bytes of null data.

77. (New) The VSB data format of claim 69, wherein each expanded supplemental data segment has 187 bytes comprising a total of 3 bytes of an MEPG header, a total of 72 bytes of original supplemental data, a total of 20 bytes of Reed-Solomon parity, and a total of 92 bytes of null data.

78. (New) The VSB data format of claim 69, wherein each expanded supplemental data segment has 187 bytes comprising a total of 3 bytes of an MEPG header, a total of 82 bytes of original supplemental data, a total of 10 bytes of Reed-Solomon parity, and a total of 92 bytes of null data.

79. (New) The VSB data format of claim 69, wherein the plurality of main data segments and the plurality of expanded supplemental data segments are multiplexed at a predetermined multiplex ratio.

80. (New) The VSB data format of claim 79, wherein the multiplexing ratio of the expanded supplemental data segment to the main data segment is one to one.

81. (New) The VSB data format of claim 79, wherein the multiplexing ratio of the expanded supplemental data segment to the main data segment is one to three.

82. (New) A method of formatting a VSB data comprising:

receiving M sets of A bytes of supplemental data;

inserting A bytes of null data into each received set of A bytes of supplemental data to produce M * X sets of A bytes of expanded supplemental data segment;

multiplexing M * X sets of expanded supplemental data segment with N sets of main data segment.

83. (New) The method of claim 82, wherein the X is 2 or more.

84. (New) The method of claim 82, wherein A bytes of null data is arranged at alternating positions within each received set of A bytes of supplemental data.

85. (New) The VSB data format of claim 82, wherein M * X sets of expanded supplemental data segment and N sets of main data segment are multiplexed at a predetermined multiplex ratio.

86. (New) The VSB data format of claim 85, wherein the multiplexing ratio of M * X sets of expanded supplemental data segment to N sets of main data segment is one to one.

87. (New) The VSB data format of claim 85, wherein the multiplexing ratio of M * X sets of expanded supplemental data segment to N sets of main data segment is one to three.

88. (New) A method of formatting a VSB data comprising:

receiving M sets of A bytes of supplemental data;

Reed-Solomon coding each set of A bytes of supplemental data by adding B bytes of Reed-Solomon parity data to produce M sets of C bytes of Reed-Solomon coded data;

interleaving each Reed-Solomon coded set of C bytes supplemental data;

inserting C bytes of null data into each interleaved set of C bytes of supplemental data to produce M * X sets of C bytes of expanded supplemental data;

inserting D bytes of header to produce M * X sets of expanded supplemental data segment; and

multiplexing M * X sets of expanded supplemental data segment with N sets of main data segment.

89. (New) The method of claim 88, wherein an amount of the added Reed-Solomon parity data varies with an amount of the supplemental data.

90. (New) The method of claim 88, wherein the X is 2 or more.

91. (New) The method of claim 88, wherein A bytes of null data is arranged at alternating positions within each received set of A bytes of supplemental data.

92. (New) The VSB data format of claim 88, wherein M * X sets of expanded supplemental data segment and N sets of main data segment are multiplexed at a predetermined multiplex ratio.

93. (New) The VSB data format of claim 88, wherein the multiplexing ratio of M * X sets of expanded supplemental data segment to N sets of main data segment is one to one.

94. (New) The VSB data format of claim 88, wherein the multiplexing ratio of M * X sets of expanded supplemental data segment to N sets of main data segment is one to three.

95. (New) The method of claim 88, wherein the D is 3.